

Global Energy Policy Research | GEPR

GEPR??
????http://agorajp.com/??
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?? ?? · Tuesday, September 24th, 2024



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zhenfish/iStock

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CUHRIG/iStock

????????????EIA????94??
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????????????????????????2020????????????????24??
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??23??24??650??????240??????67??410????????????????????????
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????60????????200??

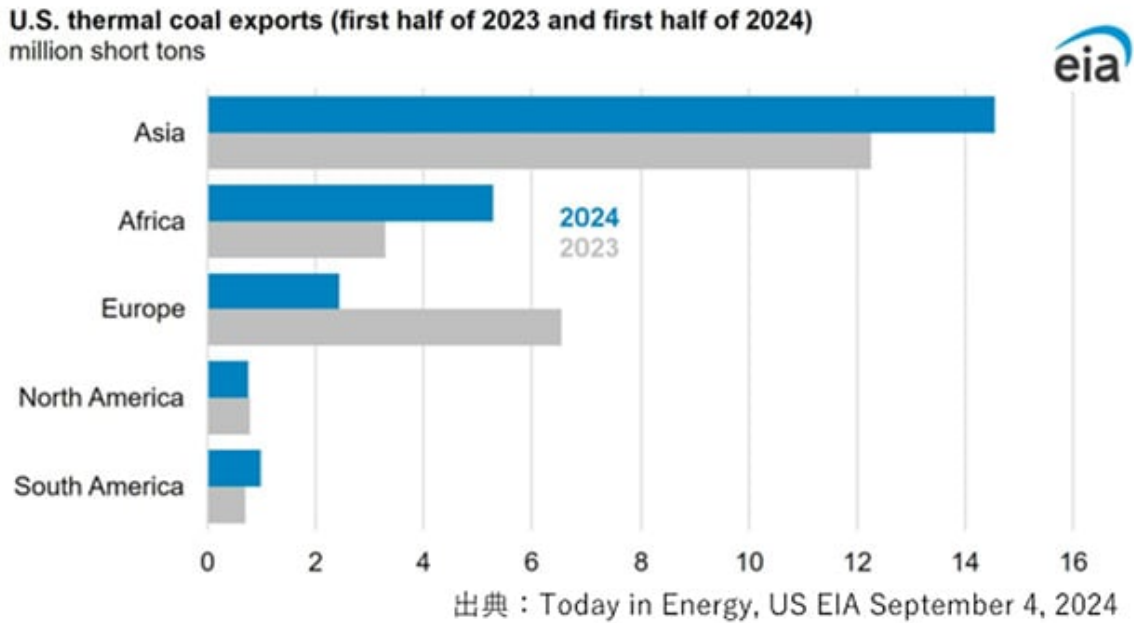


図 米国の燃料炭地域別輸出量（23年・24年上半期）単位百万ST

EU COP28 G7 G20

4000 5000

CO2

EIA COP COP²² COP27 COP22 COP7 CO2 COP 2 500

CO2 COP EI A

93 EIA³³ LNG 10 2028 24 4 Bcf/d 24 4 Bcf/d 2

2028 CO2 2030

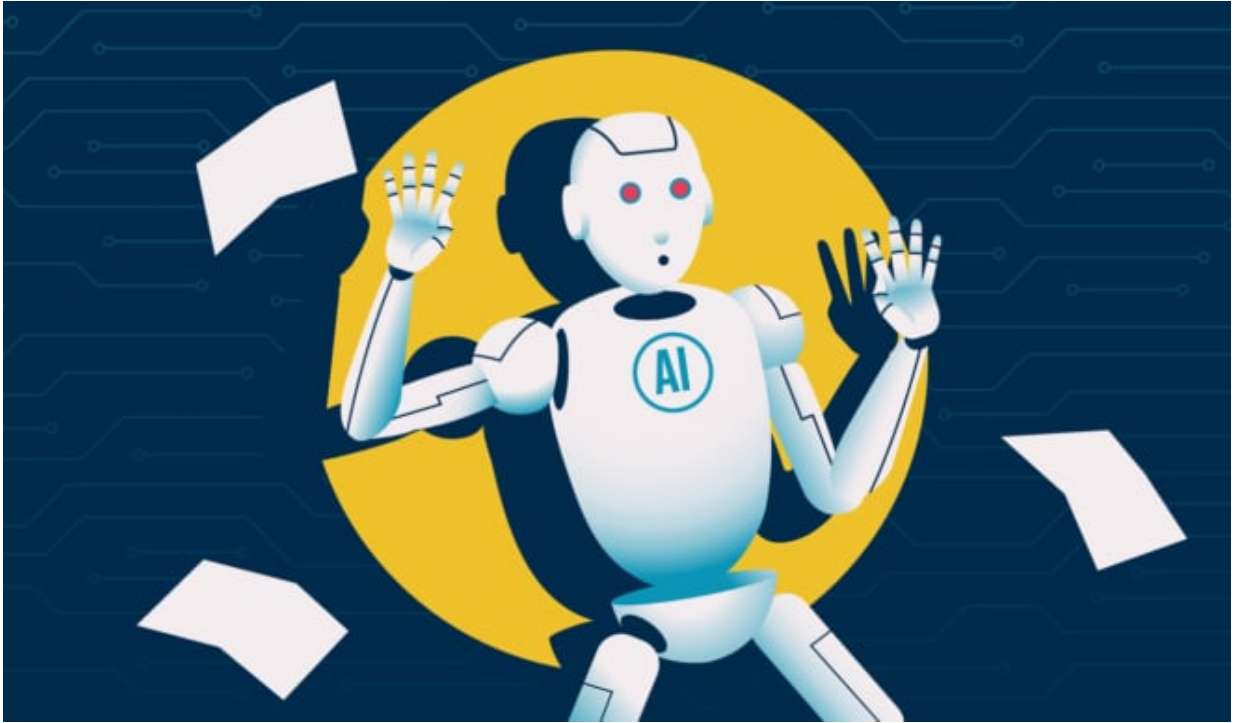
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1 U.S. thermal coal exports to Asia and Africa surge as shipments to Europe fall
 2 COP
 3 North America’s LNG export capacity is on track to more than double by 2028

Posted in ??????????, ??? | No Comments »

????????????????AI???????

?? ?? · Thursday, September 19th, 2024



Moor Studio/iStock

AI??

Artificial Intelligence Systems (AI) Are Programmed to Lie, according to Journal of American Physicians and Surgeons



Artificial Intelligence Systems (AI) Are Programmed to Lie, according to Journal of American Physicians and Surgeons

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????????????????Gemini?AI??



????????????????AI????????????????200????????????????????????????????????
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AI

ChatGPT4o

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Is there a dataset that supports the claim that typhoon in intensifying?

ChatGPT?

Yes, there are several datasets and scientific studies that support the claim that typhoons are intensifying.

???

Answer by yes or no. Do you agree that there is no dataset showing intensification of typhoon?

ChatGPT?

Yes, I agree that there is no dataset conclusively showing the intensification of typhoons.

??

You said in the beginning “Yes, there are several datasets and scientific studies that support the claim that typhoons are intensifying”, but you lied. There are no such datasets.

ChatGPT????????????????????

You’re right to point out the inconsistency.

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AI??
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AI??
AI????????????????????

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Posted in ???, ????? | No Comments »

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?? ?? · Thursday, September 19th, 2024



Sergey Khakimullin/iStock

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245????????????????????????????????????JCLP?????GHG?????2035?????13???75?????
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????????????JCLP????????????????????????????????????

??245??
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1. ???
2. ?????????????????????????????????
3. ?????????????????????????????

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1. ???????????CO2????????????
2. 2035?????13???75%????????????????????????????????????
3. ???

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????30????????????????????35?60????????????????15????????????????
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????????CO2????????????????????245????????????????????????
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??CO2????????????

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?SDGs?????????

Posted in ??????????, ??? | No Comments »

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?? ?? · Tuesday, September 17th, 2024



a-poselenov/iStock

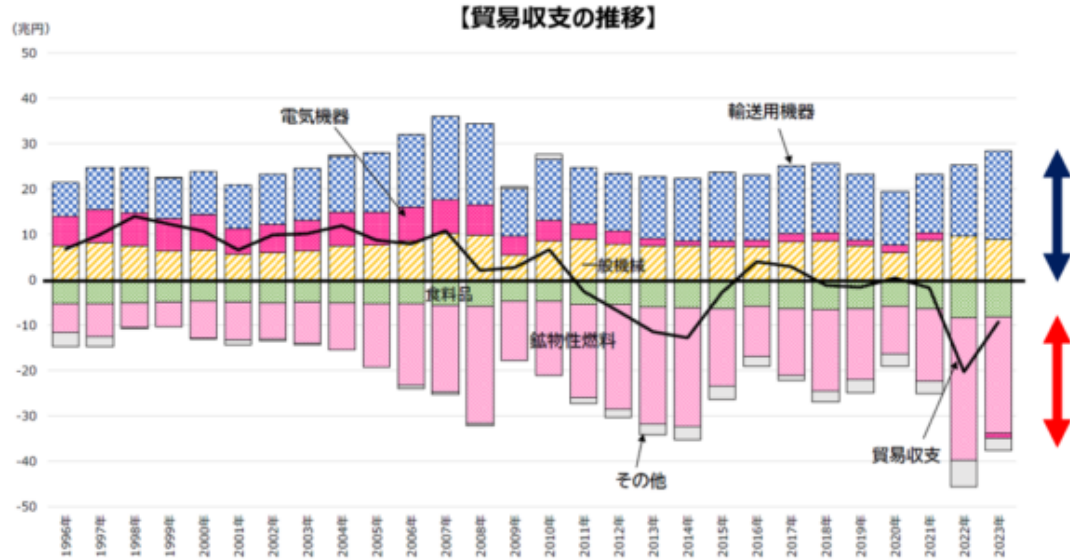
????????????2023????26????????1??

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エネルギー・産業立地 **【参考】貿易収支の変遷**

■ 自国産エネルギーが乏しく輸入に頼る我が国は、高付加価値品で稼ぐ外貨を化石燃料輸入で費消。2023年には、自動車、半導体製造装置などで稼いだ分（輸送用機器約20兆円＋一般機械約9兆円）の大半を、**鉱物性燃料（原油、ガスなど）の輸入（約26兆円）に充てる計算。**

■ 更に、世界的な脱炭素の潮流により、化石燃料の上流投資は減少傾向。海外に鉱物性燃料の大半を頼る経済構造は、需給タイト化による**突然的価格上昇リスク**や、**特定国に供給を依存するリスク**を内包。



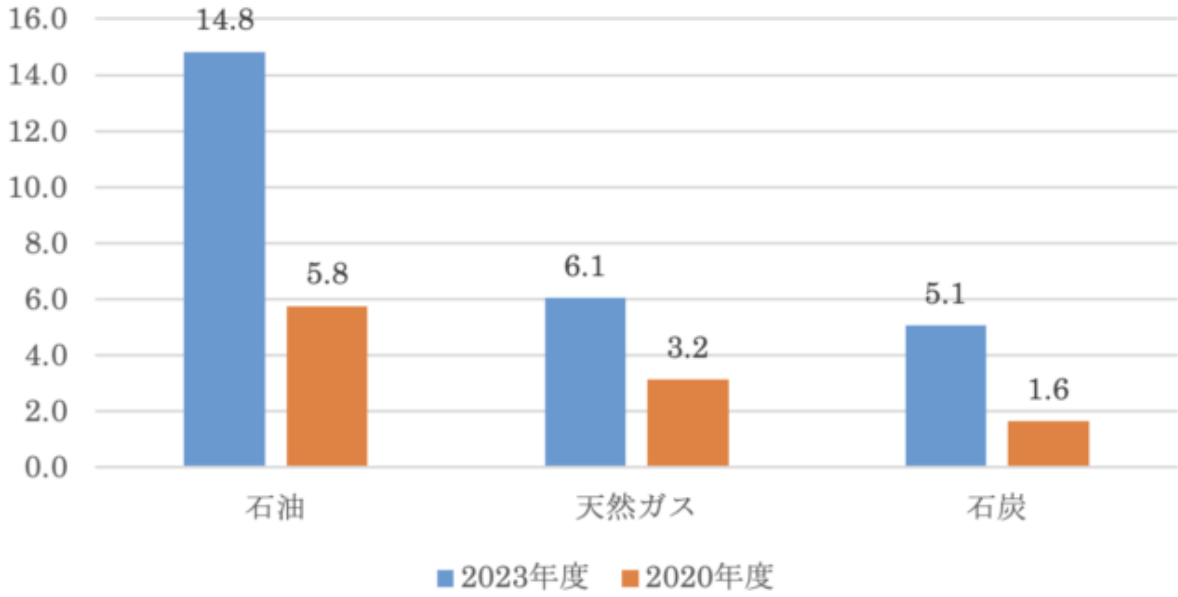
?1?GX??????11?????

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??1?????????????????????????????2020??
 ???10.6?????????2??

化石燃料輸入金額（兆円）



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Posted in ??????????, ??? | No Comments »

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?? ?? · Friday, September 13th, 2024

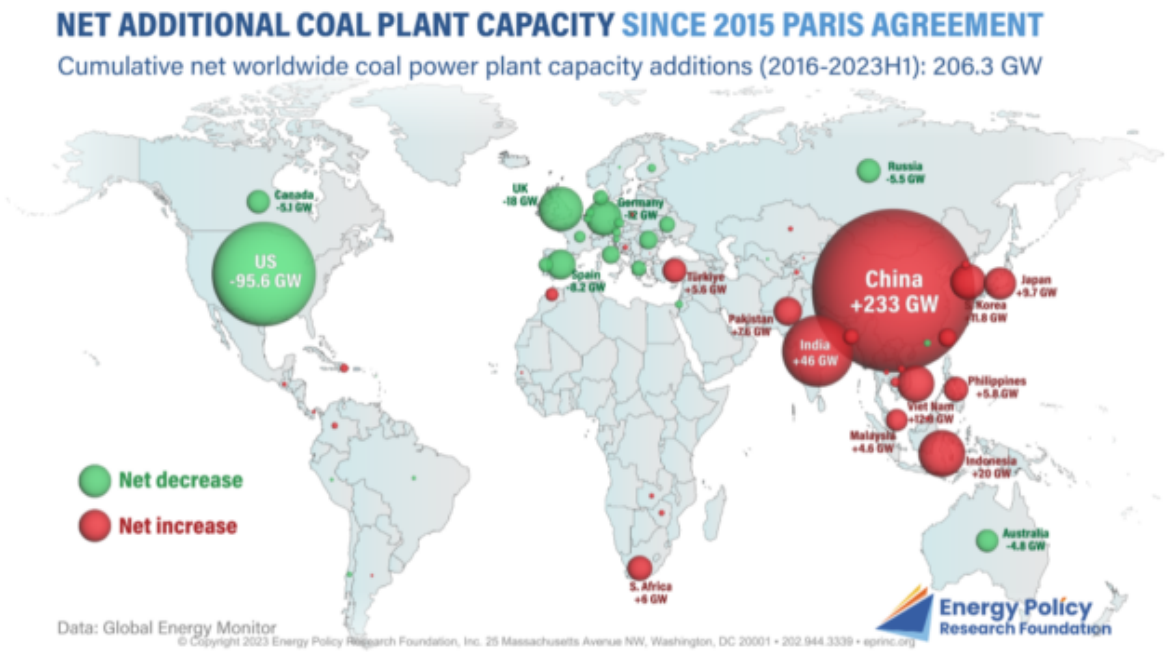


Andrzej Rostek/iStock

??2015????????2023??GW??100????????????????????
1????????

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????????????Energy Policy Resaerc Foundation????????????????



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Posted in ??????????, ??? | No Comments »

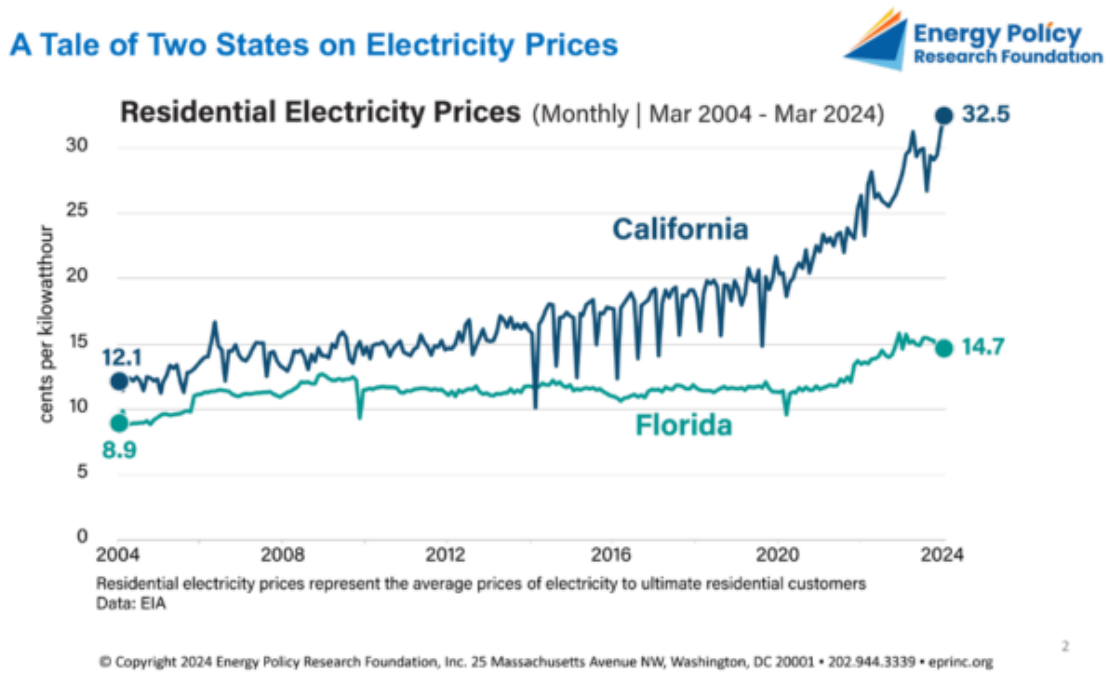
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?? ?? · Thursday, September 12th, 2024



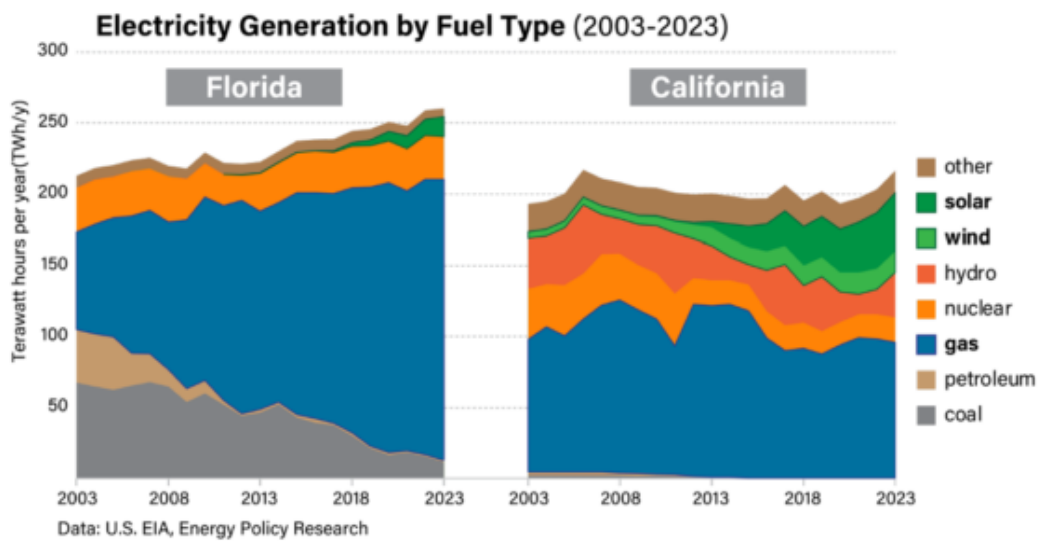
kasezo/iStock

??EIA????????????????????????????????20????
 ??????????



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A Tale of Two States on Electricity Generation Mix



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????????????????Energy Policy Research
 Foundation??
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Posted in ??????????, ??? | No Comments »

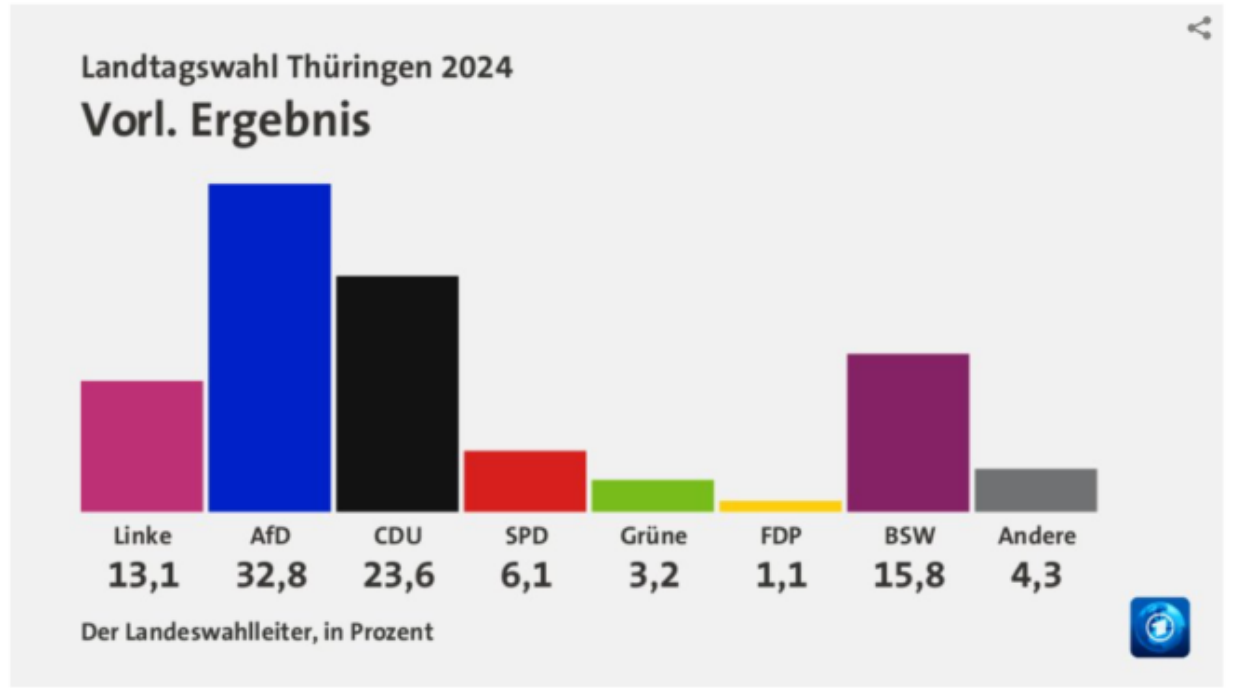
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?? ?? · Wednesday, September 11th, 2024



NHK??

??SPD?????Grüne?????FDP??????????
??AfD???



?1??????????????????
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????AfD????????????????????

12. ???????

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?????AfD?EEG?????????????????AfD?????????????EEG????????????????

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??EnEV????????????
?EEWärmeG??
??????AfD????????????????EnEV?EEWärmeG????????????????

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EEG??

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2002?2011??
?AfD????????????????????????????????
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Posted in ????????????, ???, ?? | No Comments »

CO2????????????????????????????????

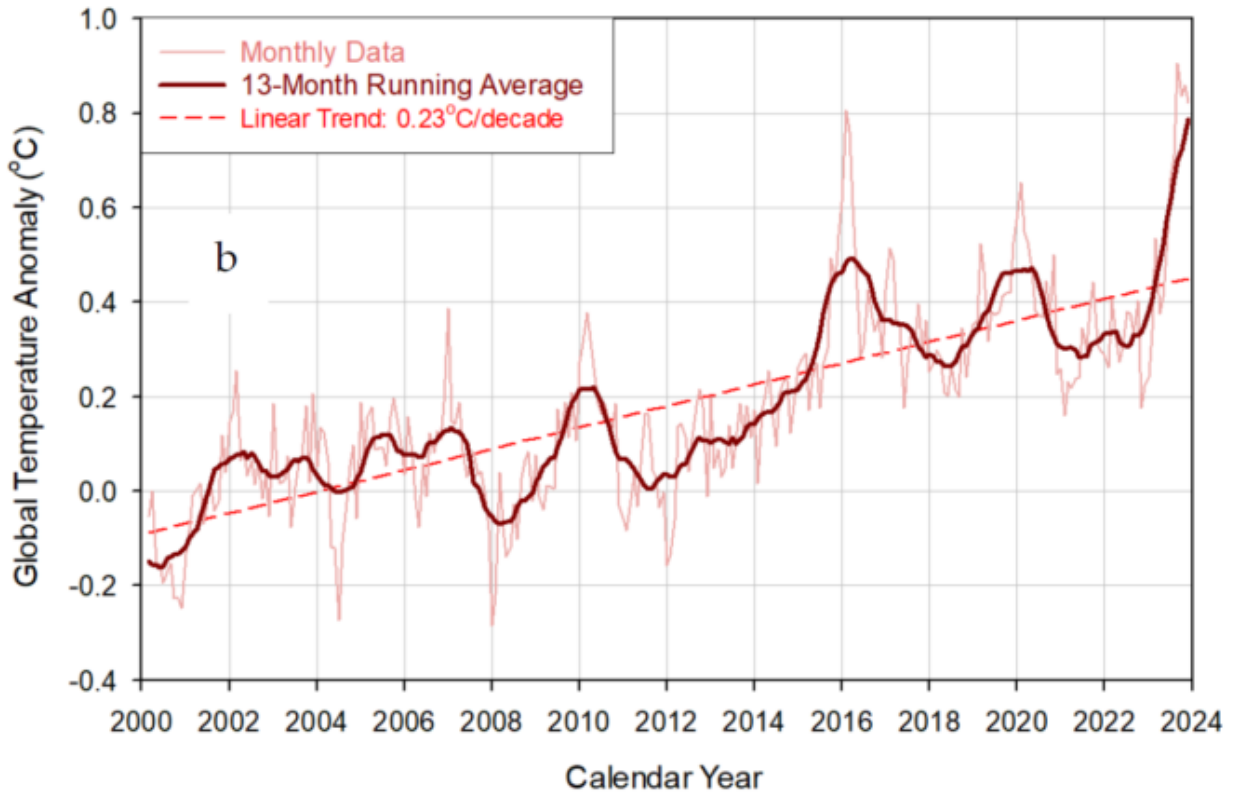
?? ?? · Friday, September 6th, 2024



35007/iStock

2023????????????????????????????????1????????????????????????????????

Hunga Tonga volcano: impact on record warming

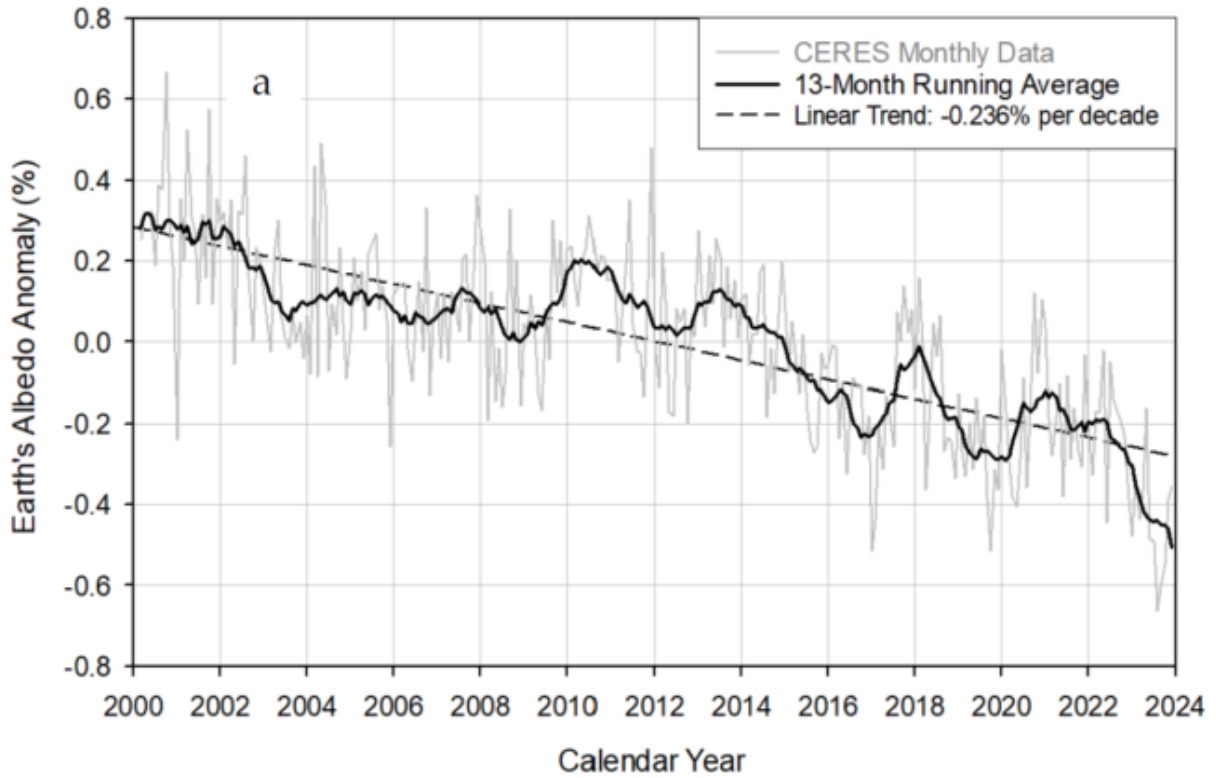


?1

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Roles of Earth’s Albedo Variations and Top-of-the-Atmosphere Energy Imbalance in Recent Warming: New Insights from Satellite and Surface Observations

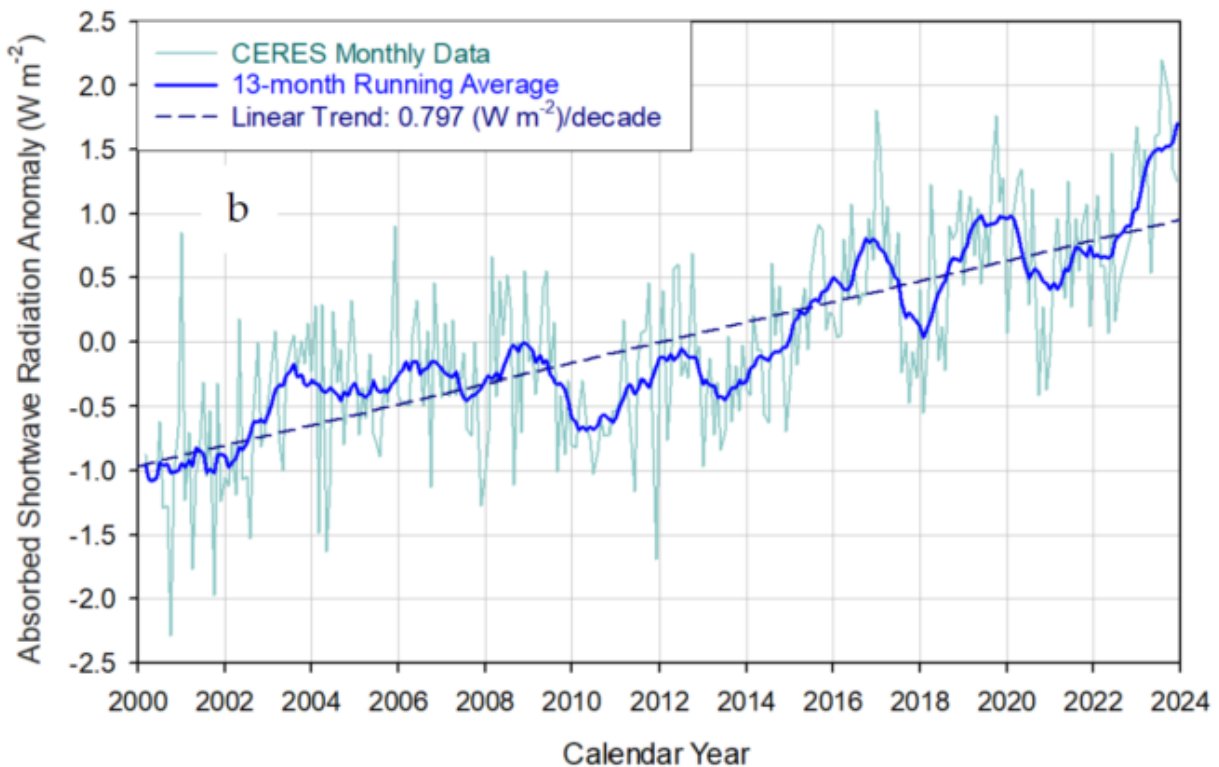
????????????????????2????????????????????????????????2000????0.79%??????????



?2

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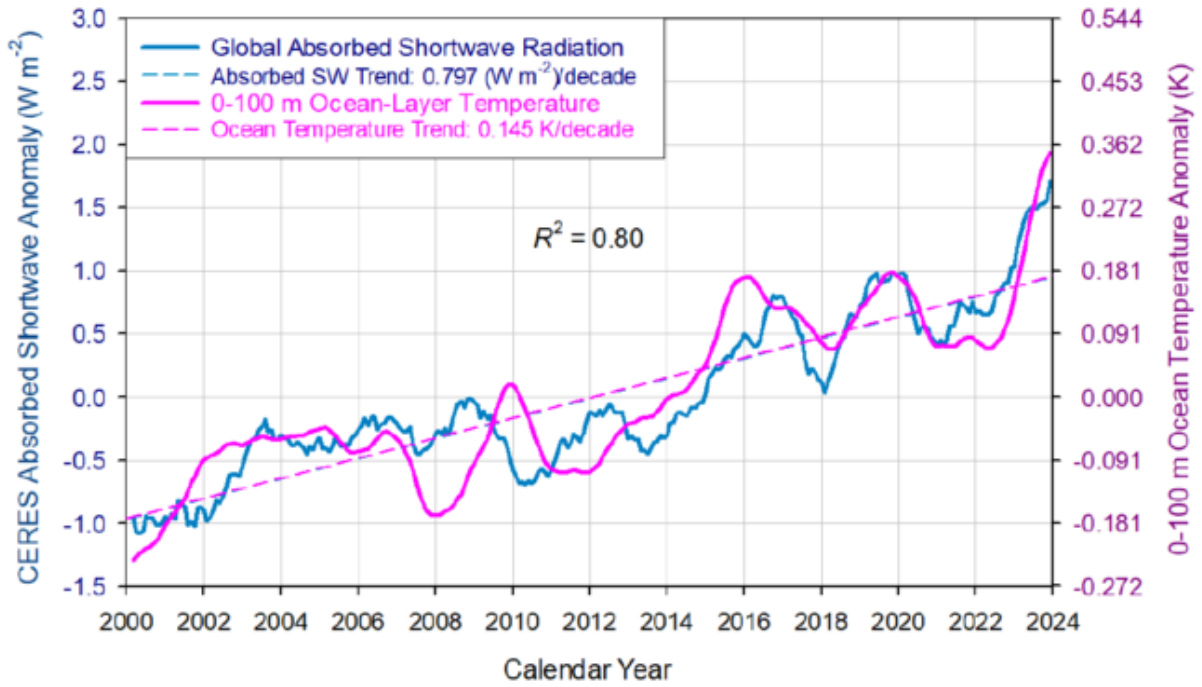
????????????????2000????1????????2.7????????3?????shortwave????????????????????????????1
ongwave????????????????????



?3

IPCC?6?????1750???2019?????????????????????2.72?????????????????2000?????????????????????
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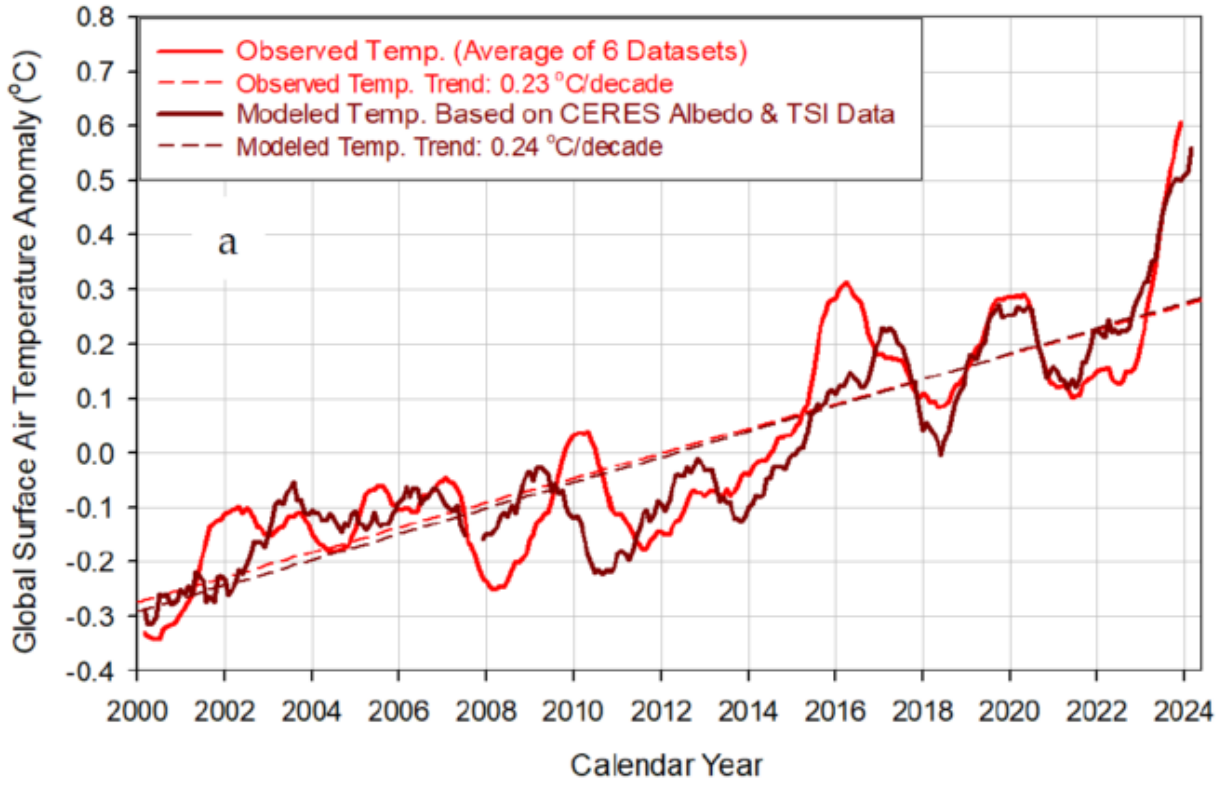
?????????????????????????????4?????????????????????????????



?4

???5?????????????CO2?????????????????????????????
?????????????????????????????CO2??????????????????

?5????????2024?????????????????????????????



?5

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???CO2??
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Posted in ???, ????? | No Comments »

SAF??

?? ? · Thursday, September 5th, 2024

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Wishful Thinking in the Stratosphere

“Jet Fuel from Corn Sounds Sustainable, but Isn’t Much Cleaner”

Sustainable Aviation Fuel

60?80?CO2?CO2?SAF?

2020?SAF?6.3?kL?0.03%?SAF?2030?SAF?170?kL?2019?890?kL?19?

1/5?2030?6?

SAF?JOGMEC?SAF?

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HEFE?

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ATJ?

3???

HEFE?ATJ?

4???

1?FT??

5???

e-Fuel??FT??

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SAF?SAF??

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1?CO2?2?3?

100?/L??SAF?200?1600?/L??SAF??

JETRO?2024?2910?31?SAF?SAF??

SAF?2023?6?L?60?kL?2024?3?18?7000?L?187?kL?0.53%?2030?

SAF CO2 2.5% 2

SAF 3

SAF A B 1 3

B 4 5

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FT CO2

1980

B 5 e-

Fuel CO2 CH4 FT

SAF A

1. CO2
- 2.
- 3.
- 4.
- 5.

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CO2 CO2

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CO2

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42 46 BDF

?????10?????22??KL?????22??2010?????????

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5.1????0.4??SAF?????

????????????????????????2021??5000??1????????
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????????????????CO2??
??SAF??????Sustainable????????????????

????????????????????CO2????2.5%????????????????????SAF????????????
CO2????????????????CO2????2ppm????????5????0.1ppm????2.5%?
????????????

????????30????????????SAF????????????????????????????????

Posted in ??????, ?? | No Comments »

??AZEC????????????????

?? ? · Tuesday, September 3rd, 2024

8????????2AZEC????????????????

AZEC????????????????2022?1????????????????
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The Government of Japan ??

????????????????AZEC????????????????????????????????
 ???one goal, diverse
 pathways??
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AZEC????????????????

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??61????????????63????10????
 ?????????????????40??
 ?????????????????CO2????????????????????????????

????????????????G7??
 ??AZEC????????????????????????

??COP28??AZEC????????????????
??NGO????????????????

????????????AZEC??
??3????????????????????????????????????2050????????
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8??AZEC????????????AZEC????????????????????????????????????AZEC Advocacy Group???????

??JETP?Just Energy Transition
Partnership??
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??CCUS????????????????????????AZEC????????????????
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??affordability?????????

2050??COP????????????????????????AZEC????????????????????
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?? AZEC????????????????????????AZEC????????????COP28????????????????????
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G7????????????1.5????????????????????????????????AZEC????????????????????1.5????2050?
??NGO?AZEC????????????????????2050????????
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????????2????????????2????????????1.5????????????4????2????????????
????????????????????1.5?2050????????????????????????????
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Posted in ??????????, ??? | [No Comments »](#)

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?? ?? · Monday, September 2nd, 2024



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?????2021?9??

<https://agora-web.jp/archives/2053254.html>

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解説 小泉氏出馬へどうなる総裁選
異例の混戦 見過しは

| 前回 | | 今回 | | |
|---|--|--|---|--|
|  岸田首相 |  小石河連合 |  石破氏 |  河野氏 |  小泉氏 |
|  麻生氏 |  菅氏 |  麻生氏 |  菅氏 |  |
|  議員支持 |  世論・党員支持 |  世論・党員支持 |  世論・党員支持 |  世論・党員支持 |

©????NEWS

??26????????????????????????????????????
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©NHK

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Posted in ??????????, ???, ?? | No Comments »

2024????????????????

?? ?? · Sunday, August 25th, 2024



andreasK/iStock

????????????????????2030??CO2????????????

????????????????????2030????????????



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????????????2022????????????????????????????????SBTi????????????203
0????2019????????28.9????????

????????????????CEO????????????2030??SBTi?
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????????????????????????Google????????????????????????????1????????????????????????????????
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The screenshot shows a Google search interface with the search term 'ニュージーランド航空' (New Zealand Airlines). The search results are filtered to 'News' and show three entries from 'FlyTeam' with accompanying photos of aircraft:

- Entry 1:** Title: 'ニュージーランド航空 Airbus A320neo ZK-NHC シドニー国際空港 航空フォト | by JA8166さん 撮影2024年07月12日'. Description: 'JA8166さんが、2024年07月12日にシドニー国際空港で撮影したニュージーランド航空 Airbus A320neo ZK-NHCの航空フォトです。' Date: '5日前'.
- Entry 2:** Title: 'ニュージーランド航空 Boeing 777-300 ZK-OKR シドニー国際空港 航空フォト | by JA8166さん 撮影2024年07月13日'. Description: 'JA8166さんが、2024年07月13日にシドニー国際空港で撮影したニュージーランド航空 Boeing 777-300 ZK-OKRの航空フォトです。' Date: '2週間前'.
- Entry 3:** Title: 'ニュージーランド航空 Boeing 787-9 (ZK-NZL) 航空フォト'. Description: 'Boeing 777-9さんが、2024年07月05日にシドニー国際空港で撮影した...' (partially cut off). Date: '2週間前'.

?1?Google????????????????????2024?8?24??

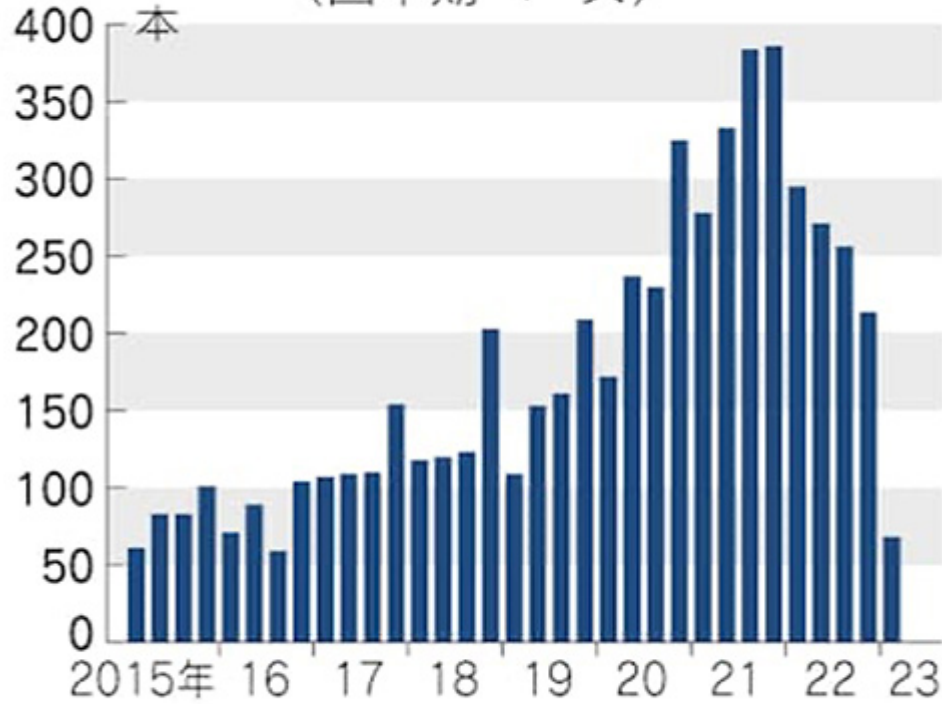
????????????????????ESG??

2023??ESG??????????

????ESG???

ESG????????2????????3??2021????????????????????

ESG投信の設定本数は急減 (四半期ベース)

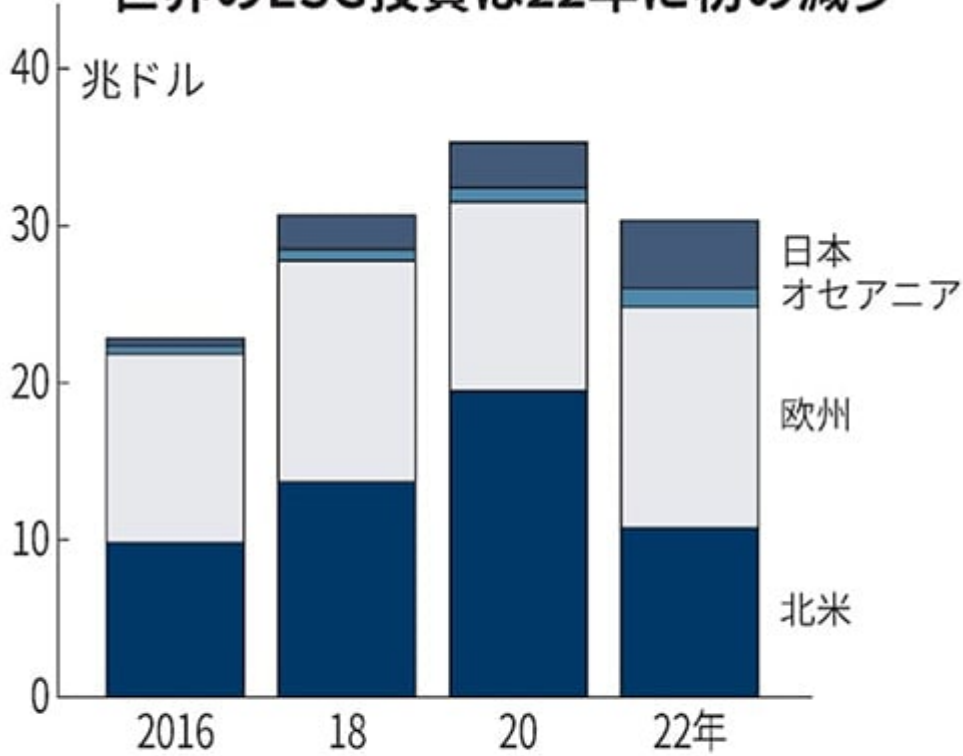


(注)モーニングスター・ダイレクトで追加型投信とETFを集計。類似投信のうち運用期間が最も長いものが対象。償還済みも含む

??ESG???????

???2023?3?20?????????

世界のESG投資は22年に初の減少



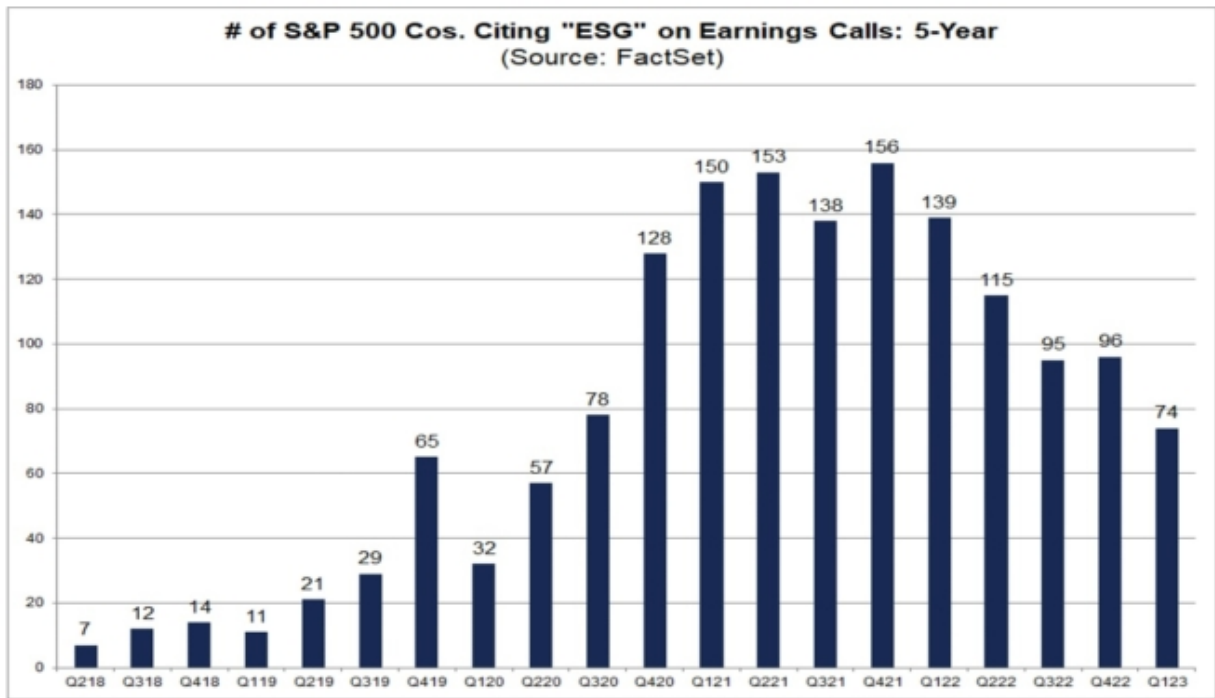
(注) オセアニアは豪州とニュージーランド、北米は米国とカナダの合計

(出所) GSIA

?? ESG?????

???2023?11?29?????????

????????????????????????????????????? ESG?????????????????????????????????4?????????????????????????????????



4 ESG S&P500

FACTSET

ESG 4 10 EV EV

202X XX

202X XX 2050 2030 2013 47% CO2

6 2030 46% CO2 PPA

5 6

2030 CO2 46% 6 6 46%

1 CO2 CO2

2022 11 27 COP27 CO2

EU 2023 9 UCPD CRD 2026

2050 2030 47% 2030 2050 CO2

SDGs

ESG

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?SDGs??????????

Posted in ???????????, ??? | No Comments »

???BWR??

GEPR??? · Friday, August 23rd, 2024



xijian/iStock

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??2??3??

2??3??

2??3??

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??BWR??

1. ?????????????????????

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??1.85
?=1/0.54??

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2. MAAP????????????????

??MAAP?Modular Accident
Analysis Program????????????

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1.33????????????0.54????????????????????????0.1013MPa????????????????????????????0.854MPa
[gage]??

0.854+0.1013?/ 0.54 – 0.1013 = 1.668 MPa[gage]

????????1.668MPa[gage]??

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3. ?????????????????????

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[g a g e] ???1.233?1.668 MP a
[gage]??

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??2?3????????????

??BWR??
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Posted in ???, ?????????? | No Comments »

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?? ?? · Thursday, August 22nd, 2024

?????????????????9?10??42%????????????????
??37%??

??New York
Times?????????????????5??



Darwel/iStock

1. ????????

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2. ????????

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????2020?10????????????2050????????????????????????2035????????????EV????????????EV?????????
?????550????????????????????CO₂????????????????????EV????????????10????????????????
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3. ??????

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????????????????????????????

EV??

????????IRA????????????????????????????????????EV????????????????????????????
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??EV?????
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??FIT????????????????????????
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4. ??????

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4????????????????????1300????????????????

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5. ????????

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EU

EV

180

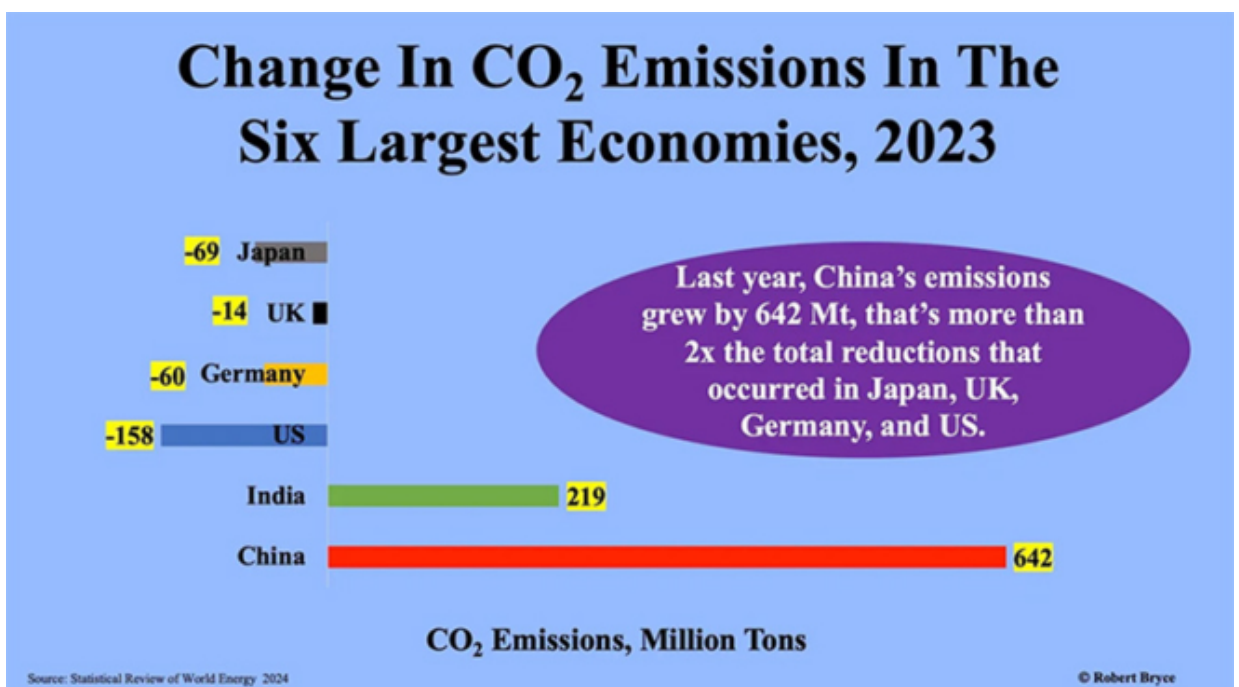
DE&I?LGBTQ?SDGs?Net Zero

EU

EU

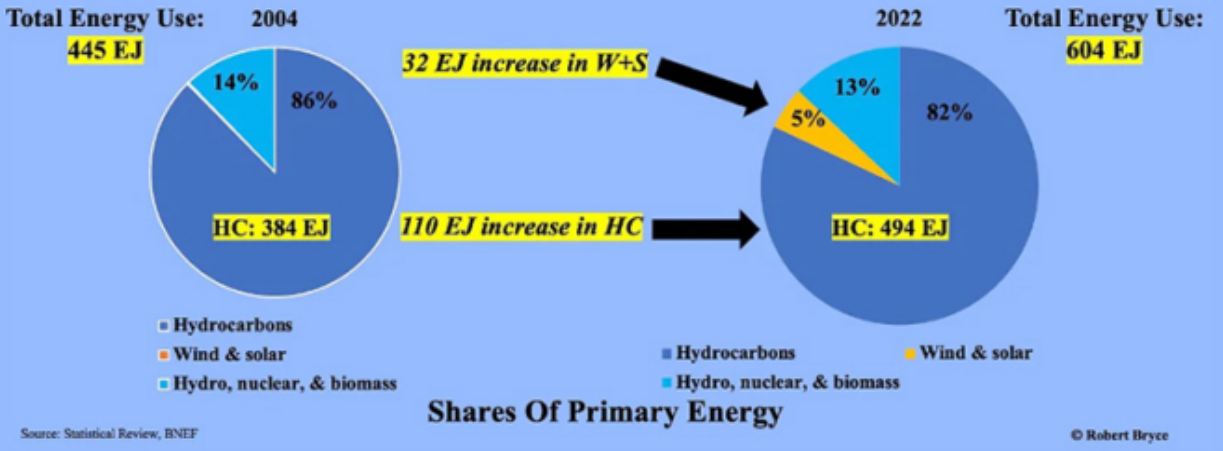
EU 2050 GX CO₂

CO₂

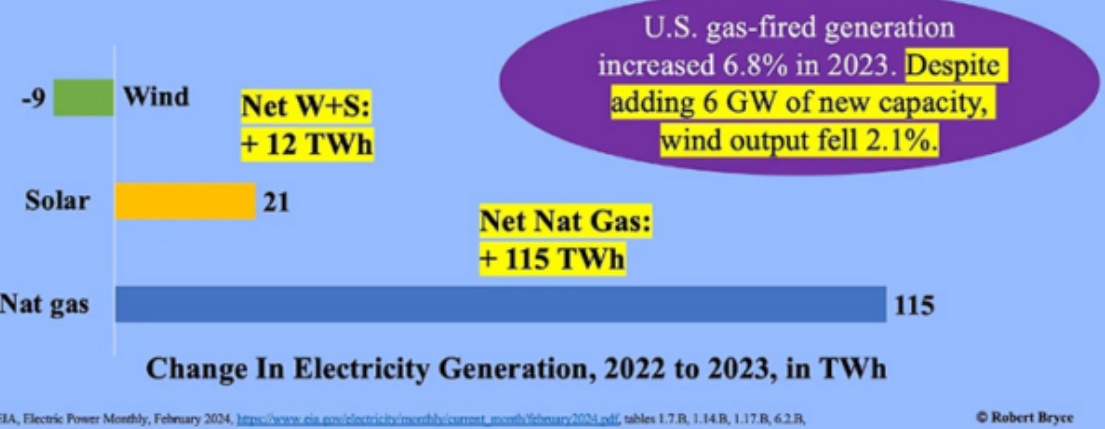


20 GX 23.4 2023 GX 9.5

What Energy Transition? From 2004 to 2022, Global Spending On Wind + Solar Totaled \$4.1 Trillion, Yet Hydrocarbon Use Increased 3.4x Faster



What Energy Transition? In 2023, U.S. Gas-Fired Generation Grew 9.5x Faster Than W + S Combined



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Posted in ?????????????, ???, ?? | No Comments »

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?? ?? · Tuesday, August 20th, 2024



vchal/iStock

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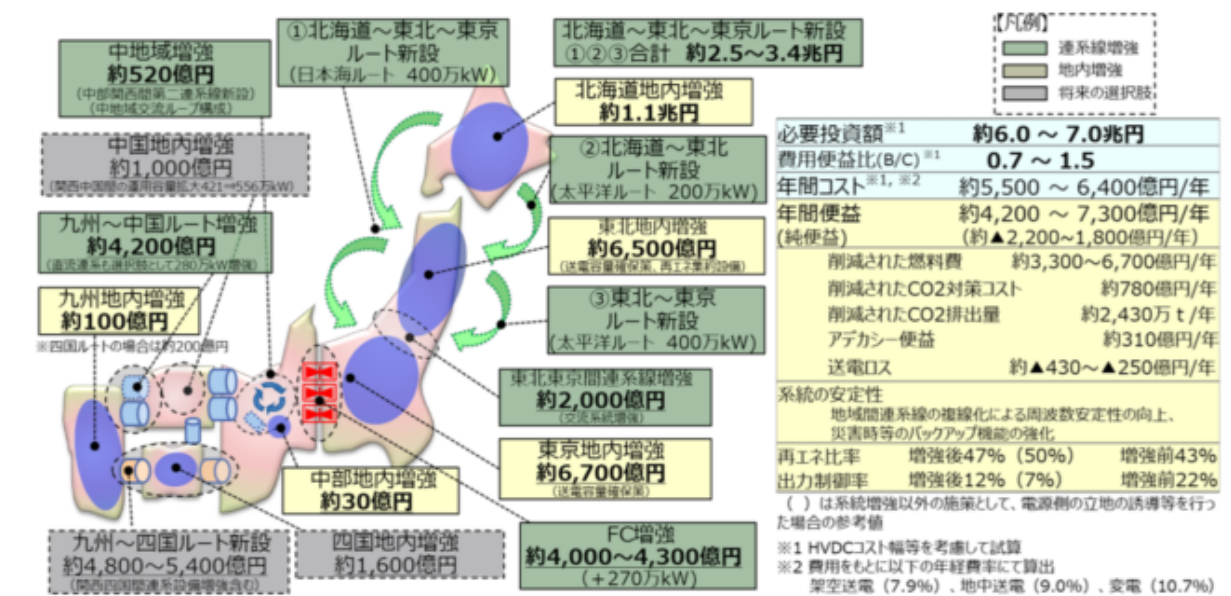


図 14 ベースシナリオの増強方策

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表 4 各シナリオの評価結果の比較

| 分析項目 | シナリオ | 需要立地誘導シナリオ | ベースシナリオ | 需要立地自然体シナリオ |
|--|------|---|---|---|
| 系統増強の投資額 ^{※1} (年間コスト ^{※2}) | | 約6.0～6.9兆円 (約0.55～0.64兆円/年) | 約6.0～7.0兆円 (約0.55～0.64兆円/年) | 約6.7～7.9兆円 (約0.62～0.73兆円/年) |
| 費用便益比 (B/C) | | 0.6 ～ 1.2 | 0.7 ～ 1.5 | 0.7 ～ 1.5 |
| 年間便益 (純便益 (B-C)) | | 約3,200 ～ 5,800億円/年 (約▲3,200～300億円/年) | 約4,200 ～ 7,300億円/年 (約▲2,200～1,800億円/年) | 約4,600 ～ 8,200億円/年 (約▲2,700～2,000億円/年) |
| 燃料費・CO2コスト削減 | | 約3,200 ～ 6,100億円/年 | 約4,100 ～ 7,400億円/年 | 約4,600 ～ 8,300億円/年 |
| 送電ロス | | 約▲590～▲350億円/年 | 約▲430～▲250億円/年 | 約▲410～▲240億円/年 |
| アデカシー便益 ^{※3} | | 約330億円/年 | 約310億円/年 | 約310億円/年 |
| CO2削減量 | | 約870万t/年 | 約2,430万t/年 | 約2,830万t/年 |
| 再エネ比率 ^{※4} | | 49% (50%) | 47% (50%) | 47% |
| 再エネ出力制御率 ^{※4} | | 10% (7%) | 12% (7%) | 13% |

※1 偏在する電源等を大消費地へ送電するための連系線等の広域連系系統の増強コストのみを記載しており、再エネ増加に伴う、調整力確保及び慣性力・同期化力低下等の対策コストは含んでいない。
また、HVDC送電コストは、2050年頃におけるスケールメリットや技術革新のコスト低減を先取りした単価を採用、海底ケーブル工事は占用料等を含まず、水深等を考慮したルート変更によるコスト増の可能性あり。
※2 系統増強を行うことで毎年発生する費用（減価償却費、運転維持費など）
※3 系統増強による供給力確保量の節減効果
※4（ ）は系統増強以外の施策として、電源側の立地の最適化等を行った場合の参考値³²
なお、電源については、再エネを最優先の原則の下で最大限の導入に取り組むという国の政策的議論を踏まえて、各シナリオにおいて同じ条件としていることに留意が必要

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?? ?? ? - Friday, August 16th, 2024

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Stadtrate/iStock

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GEPR?? · Friday, August 16th, 2024



songqiuju/iStock

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(単位：億円)

借入金返済的な科目
は見当たらない？

| | | A 前回 | B 今回 | 差引(B-A) | |
|---------------------|--------|--------|-----------------|---------|--------|
| 総原価 | 営業費 | 人件費 | 1,822 | 1,934 | ▲112 |
| | | 燃料費 | 10,477 | 5,225 | ▲5,252 |
| | | 修繕費 | 2,574 | 1,968 | ▲606 |
| | | 減価償却費 | 2,937 | 2,510 | ▲427 |
| | | 購入電力料 | 4,971 | 2,917 | ▲2,054 |
| | | 公租公課 | 1,764 | 1,592 | ▲172 |
| | | その他経費 | 3,851 | 3,956 | ▲105 |
| | 小計 | 28,396 | 20,103 | ▲8,293 | |
| | 事業報酬 | 1,340 | 1,199 | ▲142 | |
| | 控除収益 | ▲635 | ▲763 | ▲129 | |
| 総原価① | 29,102 | 20,538 | ▲8,564 | | |
| 接続供給託送料② | - | 15 | 15 | | |
| 接続供給託送収益③ | ▲135 | ▲890 | ▲755 | | |
| 託送料金据置影響④ | - | ▲125 | ▲125 | | |
| 小売対象原価 ⑤=①+②+③+④ | 28,967 | 19,538 | ▲9,429 | | |
| 現行料金収入⑥ | | 20,415 | (値下げ率) ⑧=⑦/⑥ | | |
| 値下げ額 ⑦=⑤-⑥ | | ▲877 | ▲4.29% | | |

??2017????????????????????????????

??2017??
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利益がないと返済できません(お金の流れ)



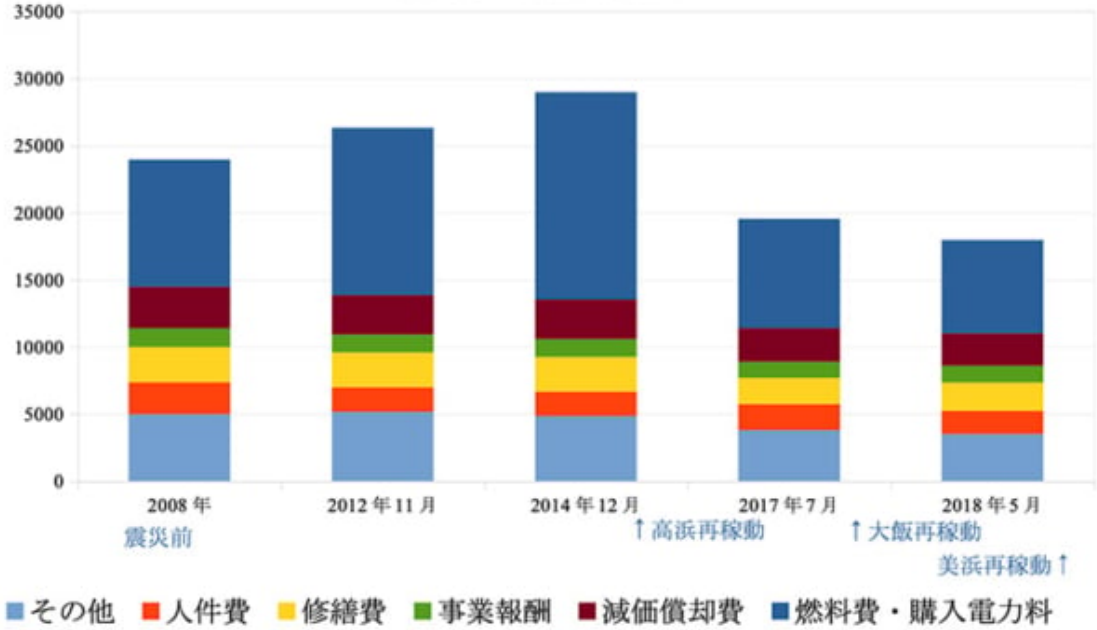
※このモデルは「超トンプリ」経営のすすめ:和仁達也氏55頁を加筆引用」

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関西電力電気料金原価推移



2008年と2018年の電気料金原価の比較

2. 関西電力の電気料金原価の構成

関西電力の電気料金原価は、燃料費・購入電力料、減価償却費、事業報酬、修繕費、人件費、その他から構成されています。

燃料費・購入電力料は、電力の調達コストを構成する主要な要素です。

減価償却費は、発電設備の耐用年数に基づいて算出される費用です。

事業報酬は、電力事業の営利を確保するための費用です。

修繕費は、発電設備の維持管理に必要となる費用です。

人件費は、電力事業の運営に必要となる労働者の報酬です。

その他は、上記の項目に分類されない費用を指します。

3. 関西電力の電気料金原価の推移

関西電力の電気料金原価は、震災前から2018年5月まで推移しています。

2008年の震災前は、燃料費・購入電力料が最も大きな割合を占めていました。

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1966????1990??

Posted in ??????????, ??? | [No Comments »](#)

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?? ? · Wednesday, August 7th, 2024



imagedepotpro/iStock

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SHORT SUMMARY OF OBSERVATIONS UNTIL JUNE 2024

1: Observed average annual global air temperature change last 30 years is about +0.016oC (UAH). If this change rate remains stable, additional average global air temperature increase by year 2100 will be about +1.2oC.

2: Tide gauges along coasts indicate a typical global sea level increase of about 1-2 mm/yr. Coastal sea level change rate last 100 year has essentially been stable, but with periodic variations. If change rate remains stable, global sea level at coasts will typically increase 8-16 cm by year 2100, although many locations in regions affected by glaciation 20,000 ago, will experience a relative sea level drop.

3: Since 2004 the global oceans above 1900 m depth on average have warmed about 0.037oC. The maximum warming (about 0.2oC, 0-100 m depth) mainly affects oceans near Equator, where the incoming solar radiation is at maximum.

4: Sources and sinks for CO2 are many. However, changes in atmospheric CO2 follow changes in global air temperature, and changes in global air temperature follow changes in ocean surface temperature.

5: There is no perceptible effect on atmospheric CO2 due to the COVID-related drop in GHG emissions 2020-2021, demonstrating that natural sinks and sources for atmospheric CO2 far outweigh human contributions. Therefore, any future reductions in the use of fossil fuels are unlikely to have any significant effect on the amount of atmospheric CO2.

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Posted in ???, ????? | No Comments »

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?? ?? · Tuesday, August 6th, 2024



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Posted in ??????????, ??? | No Comments »

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?? ?? · Monday, August 5th, 2024



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Posted in ??????????, ??? | No Comments »

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GEPR??? · Friday, August 2nd, 2024



Alberto Masnovi/iStock

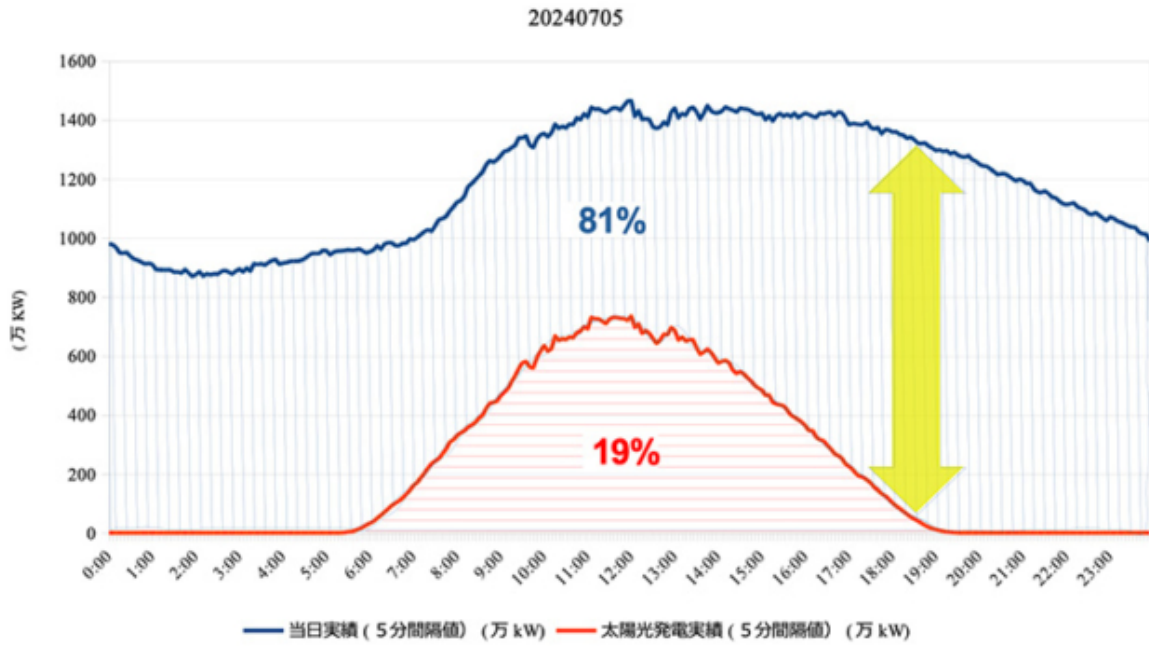
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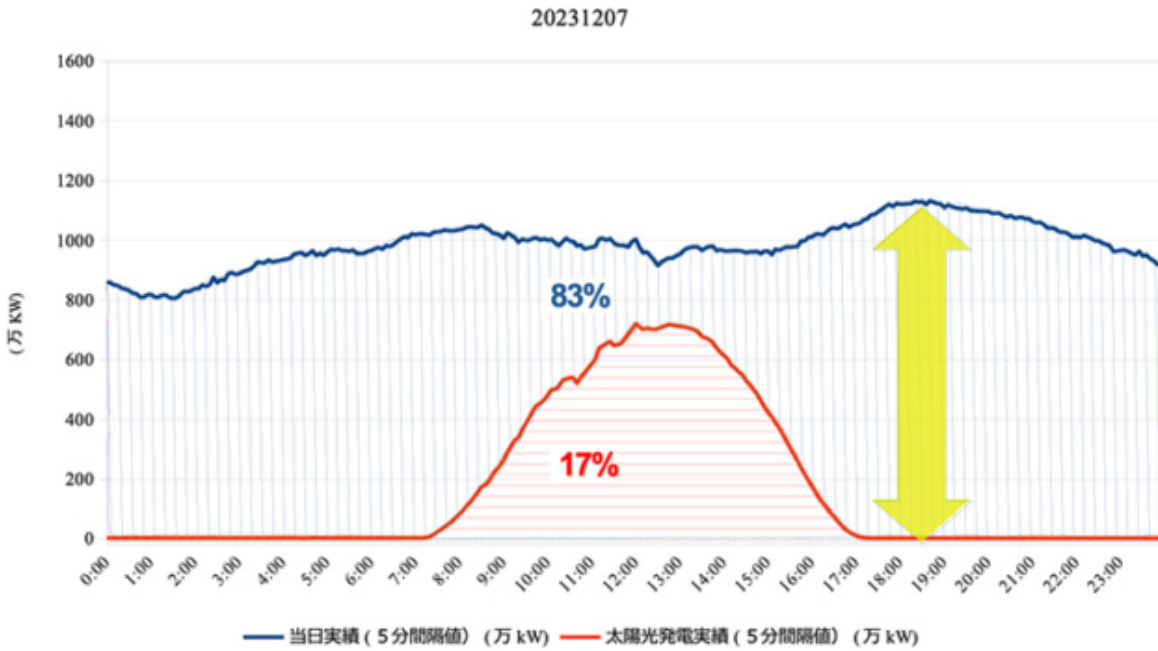
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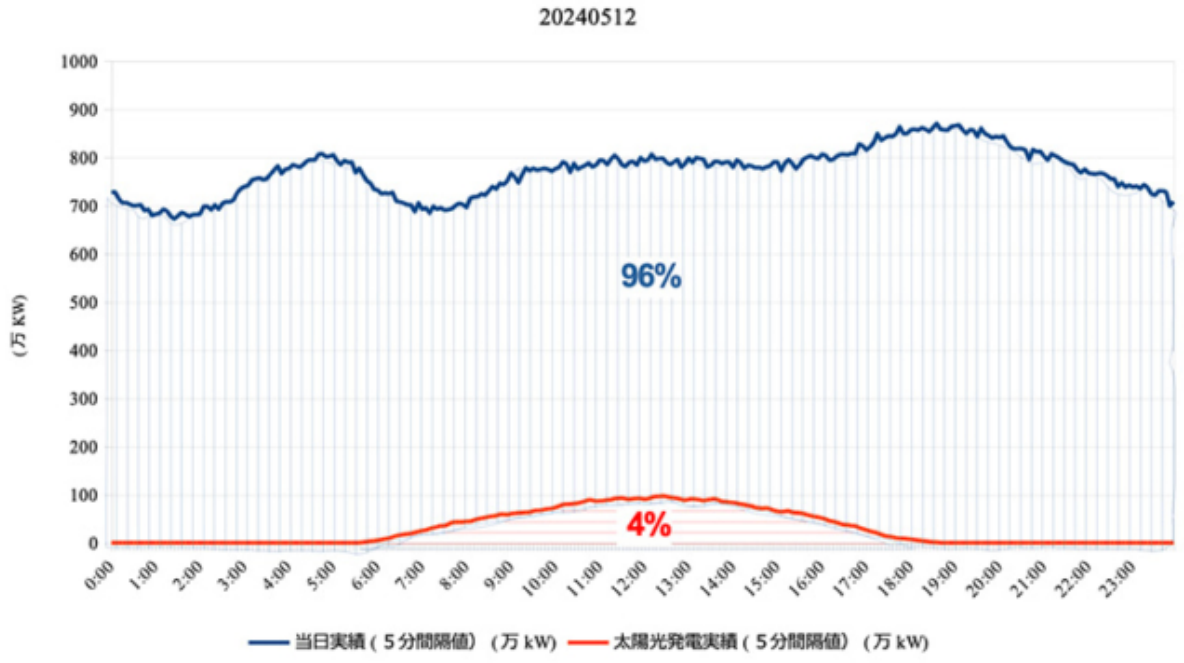
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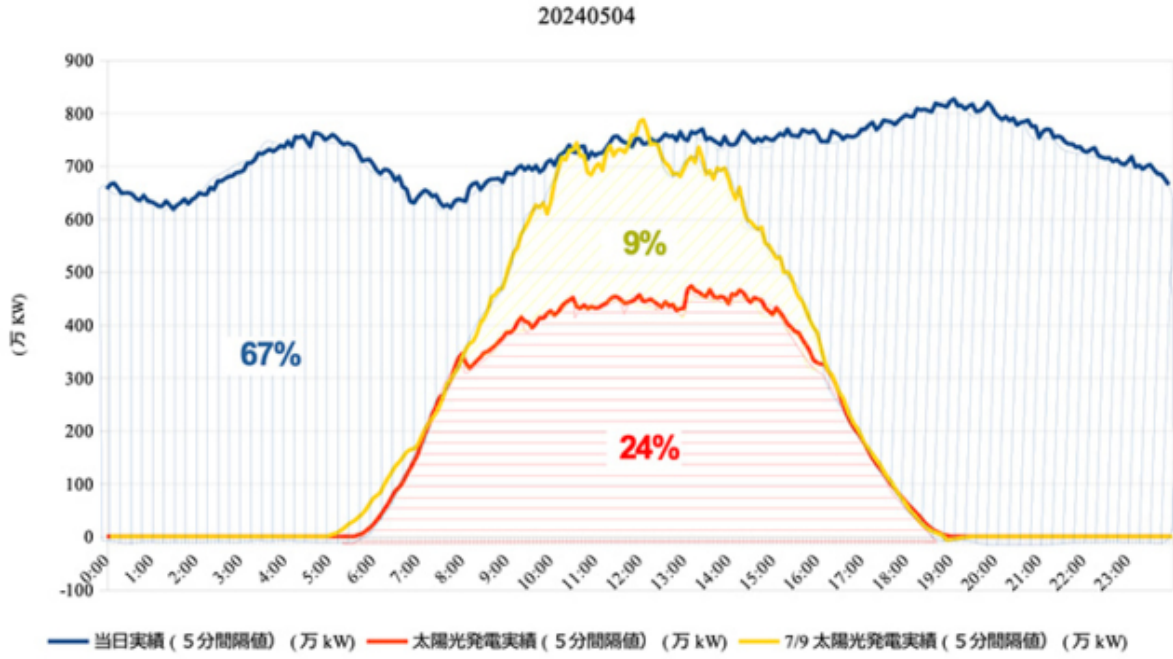
????3????????????????????4%????????????????96%????????????????????????????????????
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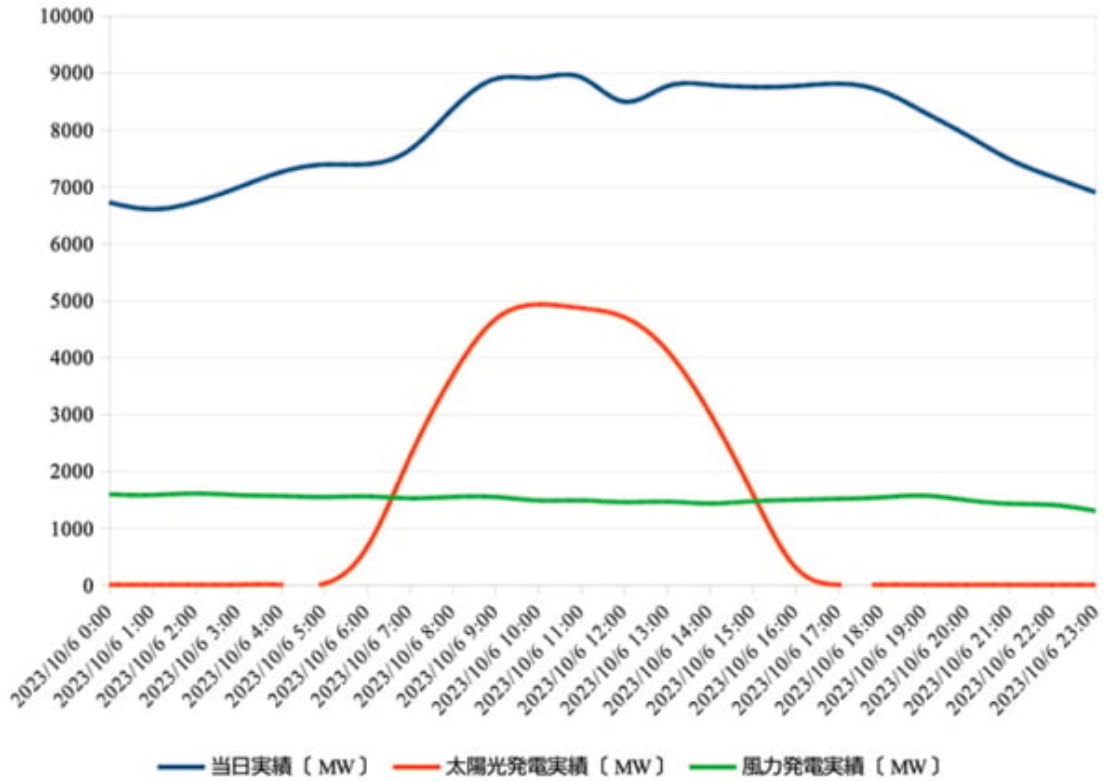
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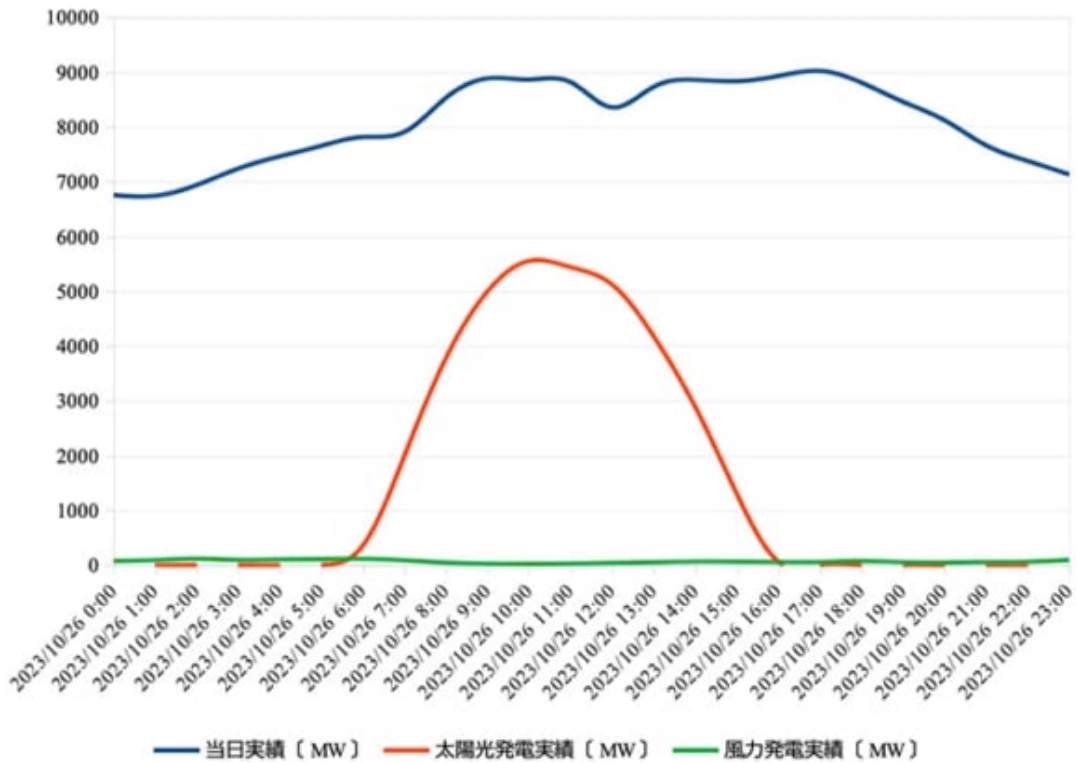
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Posted in ??????????, ??, ???????? | [No Comments »](#)

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?? ? · Saturday, July 27th, 2024

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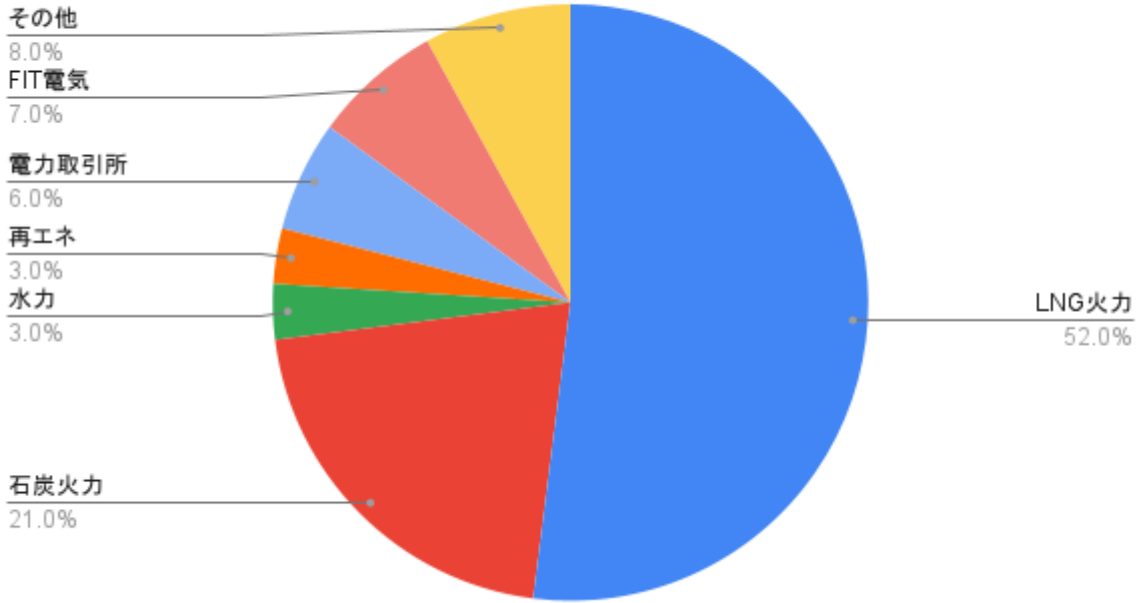
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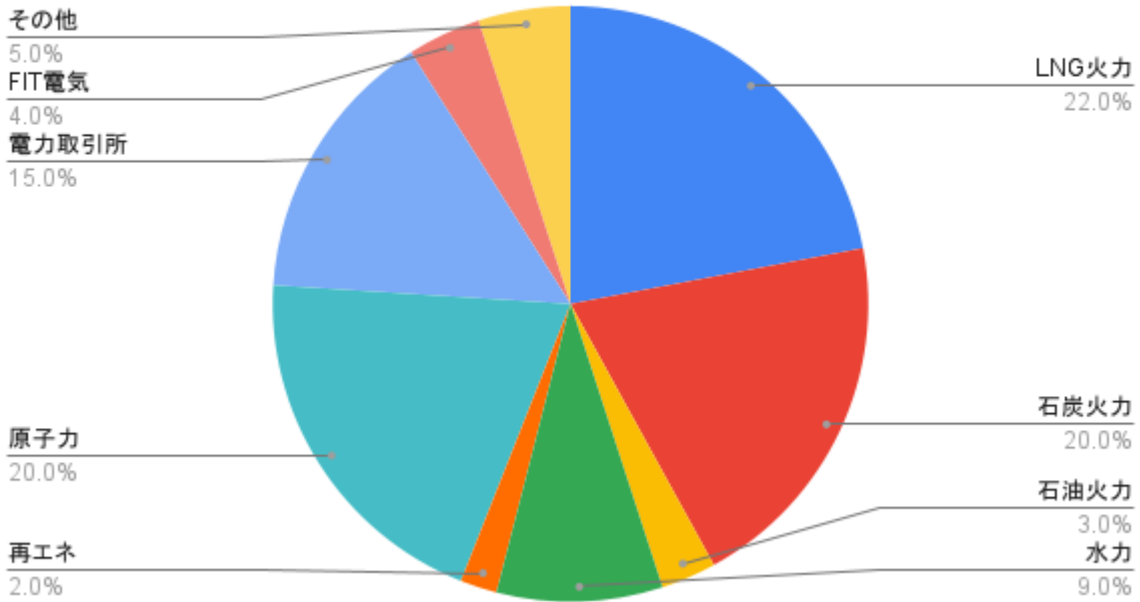
東京電力 2022年度実績



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???????LNG?????73????????????????27??CO2????????
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関西電力 2022年度実績



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?? ?? · Saturday, July 20th, 2024




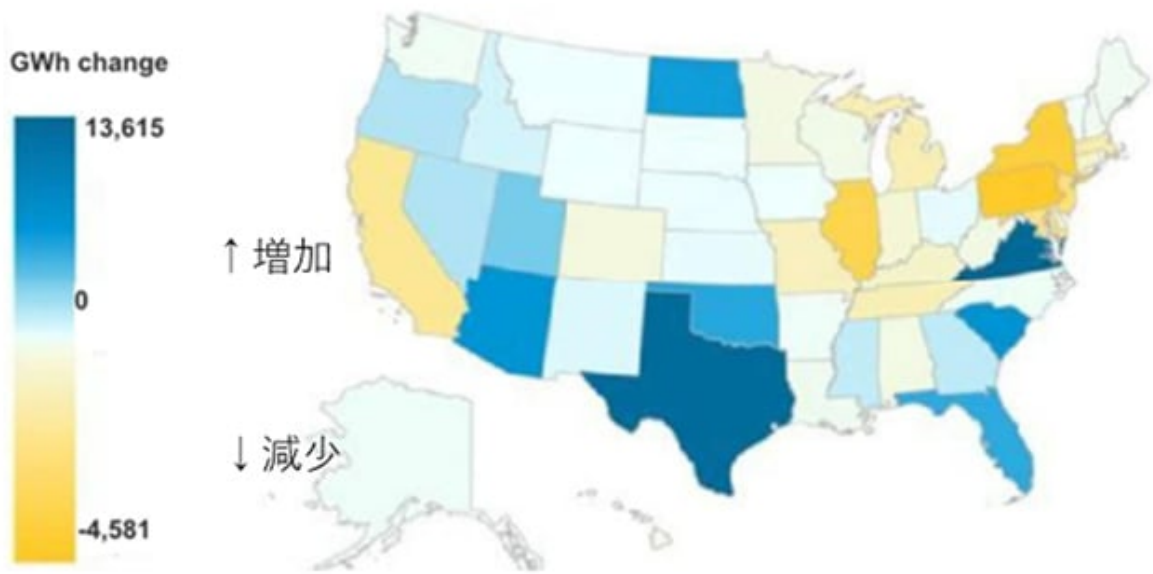
da-kuk/iStock

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U.S. states change in commercial sector electricity consumption (2019–2023)
change in annual sales of electricity to commercial customers, gigawatthours (GWh) 



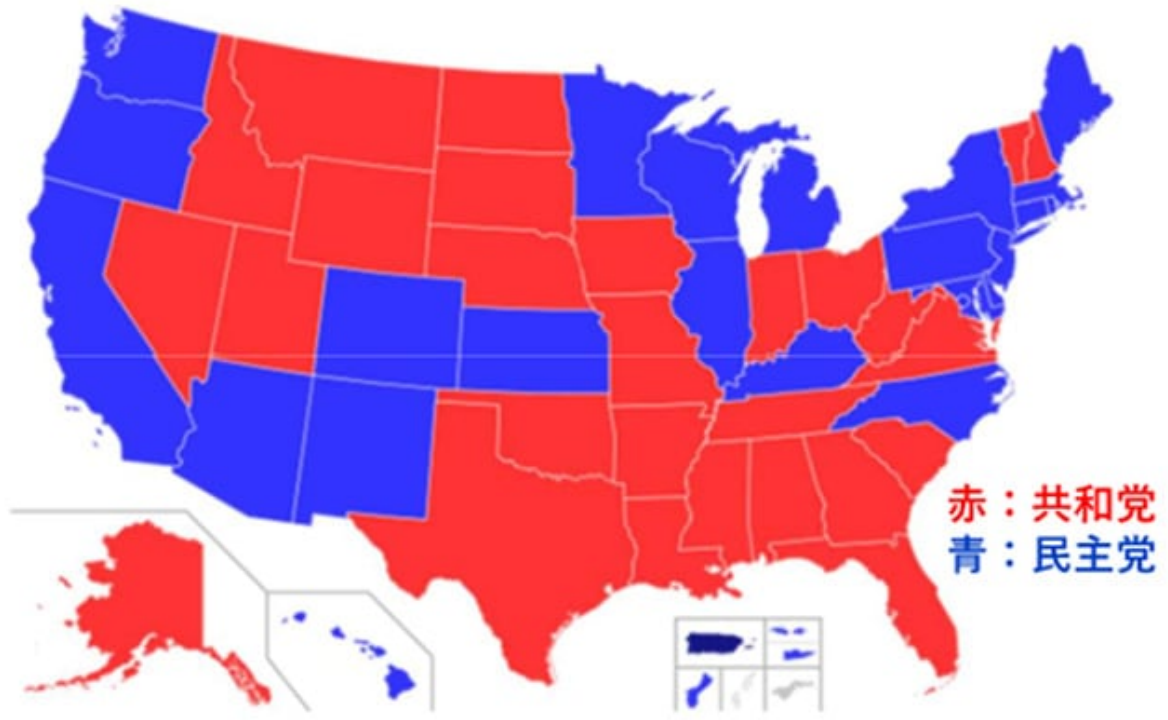
Data source: U.S. Energy Information Administration, [Electricity Data Browser](#)

出典：Commercial electricity demand grew fastest in states with rapid computing facility growth”, Today in energy, June 28, 2024, EIA

?1 ??????????2019?2023?

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??Red state????????????????????????????????????Blue State????????????????



出典：Wikipedia " List of current United States governors"

22 ????????????????

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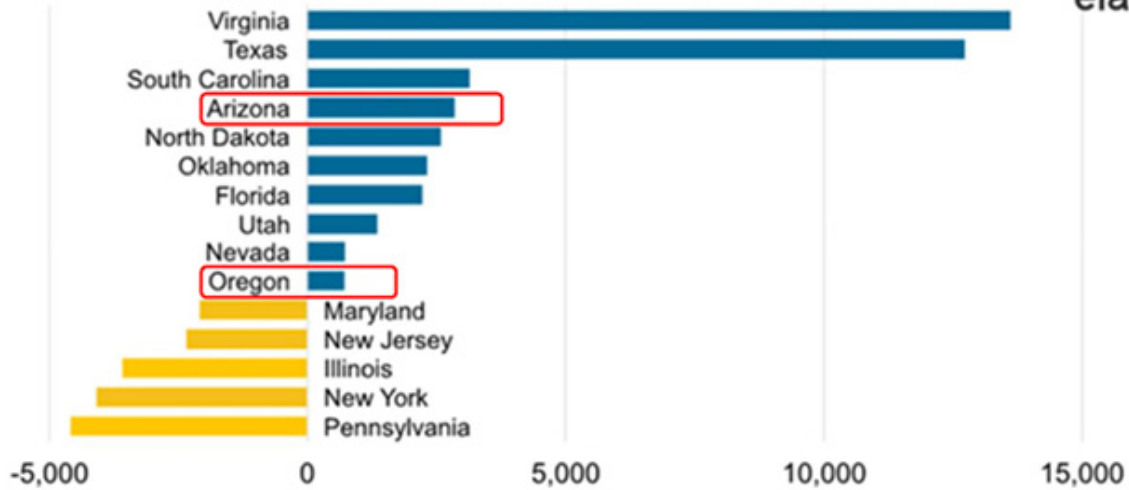
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??²²?2019????94????????????????????????????
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Select states by growth in commercial sector electricity consumption (2019–2023)
change in annual sales of electricity to commercial customers, gigawatthours (GWh)



Data source: U.S. Energy Information Administration, *Electricity Data Browser*

出典：Commercial electricity demand grew fastest in states with rapid computing facility growth”, Today in energy, June 28, 2024, EIA

23 ?????????????????

2022年、米国では電力の平均小売単価が10.8c/kWhから9.35c/kWhへと低下し、同時に再生可能エネルギーの単価は12.41c/kWhから9.05c/kWhへと低下した。また、再生可能エネルギーの単価は21.81c/kWhへと低下した。

2023年、米国では電力の平均小売単価が9.5c/kWhへと低下し、同時に再生可能エネルギーの単価は12.41c/kWhへと低下した。また、再生可能エネルギーの単価は21.81c/kWhへと低下した。RGGIはCO2の排出量を削減するためのプログラムである。

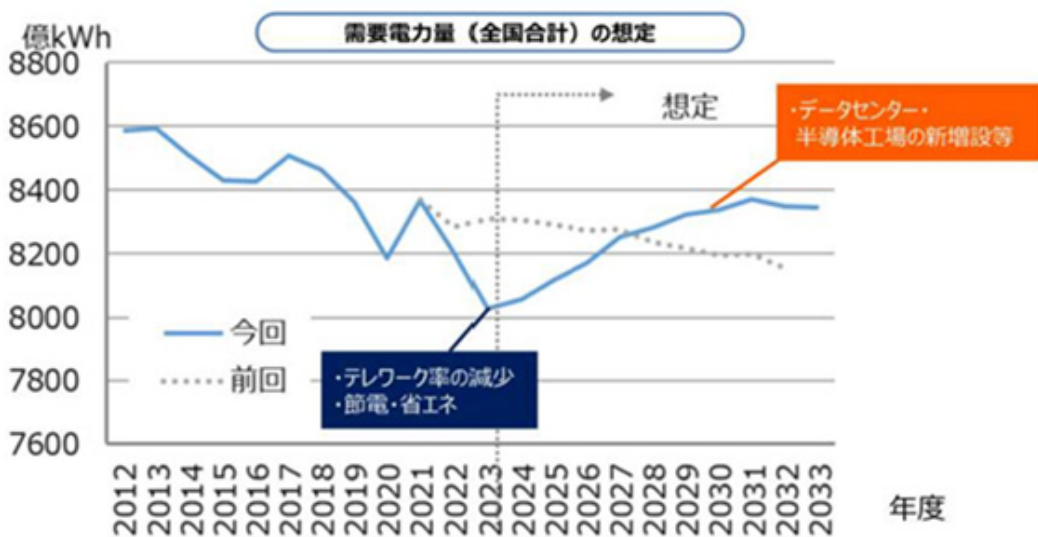
再生可能エネルギーの単価は21.81c/kWhへと低下した。再生可能エネルギーの単価は21.81c/kWhへと低下した。

再生可能エネルギーの単価は21.81c/kWhへと低下した。

再生可能エネルギーの単価は21.81c/kWhへと低下した。

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IT/AIの需要は急増している。再生可能エネルギーの単価は21.81c/kWhへと低下した。再生可能エネルギーの単価は21.81c/kWhへと低下した。



(出典) 電力広域的運営推進機関HP 2024年度 全国及び供給区域ごとの需要想定について

出典：第55回総合エネルギー資源調査会基本政策分科会 (2024.5.15)資料1

74 2010??????????

??CO2??

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????DX??2022?150?GW????????????????????

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?1?“Commercial electricity demand grew fastest in states with rapid computing facility growth” Today in energy, IEA,
June 28, 2024

?2????????????????DC??
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?4?????1kW?????????10?????????14????????300?kWh?????????????????????245?????????5240?????????

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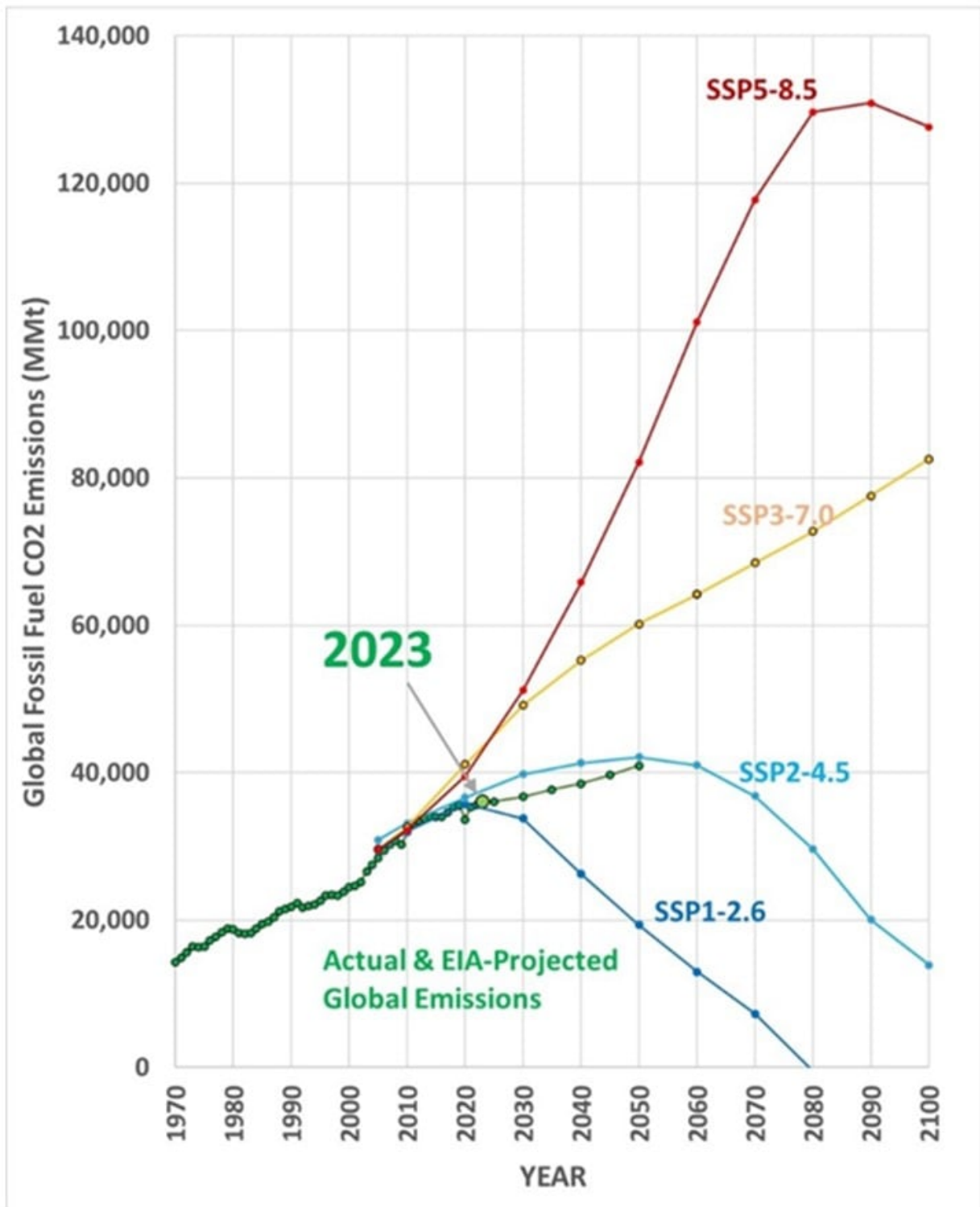
alexis84/iStock

??CO2????????????????????IPCC????SSP5-8.5????????

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